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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/529,240

03/25/2005

David Politzer

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EXAMINER

CHOWDHURY, AFROZA Y

ART UNIT

PAPER NUMBER

2629

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/529,240	<b>Applicant(s)</b> POLITZER ET AL.	
	<b>Examiner</b> AFROZA Y. CHOWDHURY	<b>Art Unit</b> 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5,7-9,11-14 and 16-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5,7-9,11-14 and 16-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Response to Amendment*

1. Applicant's amendment received on **October 29, 2008** has been entered. Claims 1-5, 7-9, 11-14, and 16-19 are currently pending. Applicant's arguments are addressed herein below.

### *Drawings*

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the **“cover having a portion configured for an operator to rest a palm of a hand thereon in a manner wherein the palm is ergonomically supported and wherein fingers of the hand are free to engage the movable part of the trackball”** (in claim 1) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering

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of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-5, 7-9, 11-14, and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Tada et al.** (US Patent 2002/0109674) in view of **Adams et al.** (US Patent 6,429,852).

As to claim 1, Tada et al. discloses a device, comprising a trackball (fig. 1(1)), the trackball having a movable part (fig. 1(2), ball),

and a body (fig. 1(3), case) inside which the movable part (fig. 1(2), ball) can move,

the trackball (fig. 1(1)) delivering an item of information on the orientation of the movable part (fig. 1(2), ball) relative to the body (fig. 1(3)),

the device also comprising a cover (figs. 1, 2(6), case cover) inside which the trackball (fig. 1(1)) is attached,

the cover (figs. 1, 2(6), case cover) being separate from the body (fig. 1(3)) and comprising an opening (fig. 2, page 3, [0047]) allowing the movable part (fig. 1(2), ball) of the trackball (fig. 1(1)) to appear in order to operate the movable part (fig. 1(2), ball) from outside the cover (figs. 1, 2(6), case cover),

the trackball (fig. 1(1)) comprising maintenance means (page 3, [0047] – [0049]), comprising means (figs. 1, 2(6), case cover) for gaining access (page 3, [0047]) to the means of maintaining the trackball (fig. 1(1)) from outside the cover (figs. 1, 2(6), case cover),

in that the means for gaining access (page 3, [0047]) to the maintenance means comprises a window (fig. 1(8)) removably attached to the cover (figs. 1, 2(6), case cover) so as to gain access (page 3, [0047]) to the maintenance means (page 3, [0047] – [0049]) by removing the window (fig. 1(8)) and without removing the trackball (fig. 1(1)) from the cover (figs. 1, 2(6), case cover).

Tada et al. does not explicitly teach a cover having a portion configured for an operator to rest a palm of a hand thereon in a manner wherein the palm is ergonomically supported and wherein fingers of the hand are free to engage the movable part of the trackball.

Adams et al. teaches a cover having a portion configured for an operator to rest a palm of a hand thereon in a manner wherein the palm is ergonomically supported and wherein fingers of the hand are free to engage the movable part of the trackball (figs. 1, 3, 6, 7, 10, col. 8, lines 36-43).

Therefore, it would have been obvious to one skill in the art at the time of the invention was made to incorporate the idea of Adams et al. of making an ergonomic input device where palm of a hand is ergonomically supported to modify Lilienfeld's ergonomic cursor control device in order to make a device comprising a trackball that provides ergonomic support to user's palm for most comfortable and efficient use of the device.

As to claim 2, Tada et al. teaches a device wherein the window (fig. 1(8)) has the shape of a disk with a hole (fig. 2(7)) therein and in that the hole forms the opening of the cover (page 3, [0047]).

As to claim 3, Tada et al. teaches a device wherein the hole (fig. 2) has a shape matching the shape of the movable part (fig. 2(2), ball) so as to limit the penetration of particles inside the cover (figs. 1, 2(6), case cover).

As to claims 4, 8, and 9, Tada et al. discloses a device comprising means of emptying out particles (page 3, [0052]) penetrating inside the cover (figs. 1, 2(6), case cover).

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Tada et al. does not teach that the particles are trapped between the window and the trackball.

However, it is obvious that the particles are trapped between the window and the trackball and Tada et al. teaches emptying out those particles (page 3, [0052]).

As to claim 5, Tada et al. teaches a device wherein the emptying means (page 3, [0052]).

Tada et al. does not explicitly teach that the cavity is acting as a collector.

However, it is obvious that the cavity is acting as a collector that is collecting all the particles.

As to claim 7, Tada et al. teaches a device wherein the ring belongs to the maintenance means (page 3, [0048] – [0049], [0055]).

As to claims 11-13, Tada et al. teaches a device wherein the trackball (fig. 1(1)) comprises a ring (figs. 1, 2(7)) attached to the body (fig. 1(3), case).

Tada et al. does not specifically teach that whether the ring is configured to prevent the movable part from losing contact with the body.

However, it is obvious that the ring is preventing the movable part from losing contact with the body.

As to claim 14, Tada et al. teaches a device wherein a ring (fig. 1(27)), which is separate from the window (fig. 1(8)), is attached to the body (fig. 1(3), case).

Tada et al. does not specifically teach that whether the ring is configured to prevent the movable part from losing contact with the body.

However, it is obvious to one skill in the art to recognize that the ring is preventing the movable part from losing contact with the body.

As to claim 16, Tada et al. teaches a device wherein the movable element is a ball (fig. 1(2)).

As to claim 17, Tada et al. teaches a device comprising a window (fig. 1(8)) which includes the opening (fig 2(7)) through which the portion of the movable element is exposed (page 3, [0047]), and which is removably attached to the cover so as to gain access to trackball and facilitate maintenance of the trackball (page 3, [0047] – [0048]).

As to claim 18, Tada et al. teaches a device wherein the window (fig. 1(8)) comprises a disk in which the opening (fig 2(7)) through which a portion of the movable element of the trackball is exposed, is formed (page 3, [0047]).

As to claim 19, Tada et al. teaches a trackball that can be installed in operating panels of various kinds of equipment ([0001]).



Tada et al. does not specifically teach a device wherein the trackball forms part of an aircraft instrument panel.

However, it is obvious to one skill in the art to recognize that trackball of Tada et al. as the part of an aircraft instrument panel.

### ***Response to Arguments***

5. Applicant's arguments with respect to claims 1-5, 7-9, and 11-19 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AFROZA Y. CHOWDHURY whose telephone number is (571)270-1543. The examiner can normally be reached on 7:30-5:00 EST, 5/4/9.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AC  
1/7/2008

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